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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,413	12/30/2003	Joachim Seeber	EVT/135/US	7849

2543 7590 11/15/2004

ALIX YALE & RISTAS LLP  
750 MAIN STREET  
SUITE 1400  
HARTFORD, CT 06103

EXAMINER
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RINEHART, KENNETH

ART UNIT	PAPER NUMBER
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3749

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/748,413

Applicant(s)

SEEBER, JOACHIM

Examiner

Kenneth B Rinehart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/27/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abdulally.

Abdulally discloses a reactor chamber (fig. 1); at least one duct connected with the reactor chamber for drawing off a flue gas having entrained solid particles from the reactor chamber (28, fig. 1); at least one cyclone separator that is connected with the duct for separating solid particles from the flue gas (26, fig. 1); at least one recirculation device for recirculating at least a portion of the separated solid particles from the cyclone separator into the reactor chamber (fig. 1), the at least one recirculation device comprising a siphon-trap gas seal including a riser having a ... (66, fig. 1), an upper end (fig. 1), and first and second outlet openings on the ... of the riser proximate of the upper end (42a, 42b, fig. 3), the first and second outlet openings pointing substantially in the direction of the reactor chamber (fig. 2), a device for fluidizing the portion of the separated solid particles, and a device for connecting each opening of the gas seal riser with the reactor chamber (73a, 73b, fig. 2), the recirculation device has a longitudinal axis and the first and second outlet openings are ... to the recirculation device longitudinal axis (fig. 2), the reactor chamber has an inlet opening in communication with each device for connecting the outlet openings of the gas seal riser to the reactor chamber (fig. 2), the reactor chamber inlet opening being disposed in a lower region of the reactor chamber (fig. 1), the first and second outlet

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openings are each disposed at a height on the gas seal riser, each of the openings being disposed at substantially the same height, the first and second outlet openings defining an ... (42a, 42b, fig. 3), the first and second outlet openings are each disposed at a height on the gas seal riser, each of the openings being disposed at substantially the same height (42a, 42b, fig. 3), the first and second outlet openings defining an ... (fig. 2), a connecting piece inclined downward from a first end to a second end (fig. 1), the first end being in communication with a one of the outlet openings (fig. 1), the connecting piece extending at an angle of 30 to 90 degrees to the recirculation device longitudinal axis (fig. 1); a first connecting part extending vertically downward from a first end to a second end (fig. 1), the first end of the first connecting part being connected to the second end of the connecting piece (fig. 1); and a second connecting part inclined downward from a first end to a second end (fig. 1), the first end of the second connecting part being connected to the second end of the first connecting part and the second end of the second connecting part being in communication with the reactor chamber (fig. 1), the connecting piece of the device for connecting the first outlet opening of the gas seal riser to the reactor chamber and the connecting piece of the device for connecting the second outlet opening of the gas seal riser to the reactor chamber are disposed ... to each other (fig. 2), the reactor chamber has a longitudinal axis and the second connecting part of the device for connecting the first outlet opening of the gas seal riser to the reactor chamber and the second connecting part of the device for connecting the second outlet opening of the gas seal riser to the reactor chamber are disposed substantially parallel to the reactor chamber longitudinal axis or the recirculation device longitudinal axis (fig. 1). Abdulally discloses applicant's invention substantially as claimed with the exception of circumference, symmetrical, an angle of 60 to 180

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degrees, 90 degrees to each other, symmetrically. At the time the invention was made it would have been an obvious matter of design choice to a person of ordinary skill in the art to have symmetrical, circumference, an angle of 60 to 180 degrees, 90 degrees to each other, symmetrically because the applicant has not disclosed that the shape, or location provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the shape or location, or symmetrically of Abdullaly or the claimed shape or location because both shapes and locations perform the same function of recirculating equally well.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to fluidized beds in general: Phalen et al (5682828), Hansen (5069171), Cote et al (5829368), Shimizu et al (6418866), Gorzegno et al (5069170).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B Rinehart whose telephone number is 703-308-1722. The examiner can normally be reached on 7:30 -4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 703-308-1935. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KBR

  
**KENNETH RINEHART**  
**PRIMARY EXAMINER**